

WHAT IS CLAIMED IS:

1. An a.c. generator for a vehicle comprising:
 - a rotator;
 - a stator iron core, arranged opposite to an outer periphery of the rotator and having a plurality of slots; and
 - a stator including a plurality of conductor segments, which are accommodated in the slots to form a stator winding,
- 10 wherein the stator iron core is insulated from the conductor segments by coating at least an end surface of the stator iron core and an inner wall surfaces of the slots with an insulative resin.
2. The a.c. generator for the vehicle according to Claim 1,
 - wherein the coating of the insulative resin is provided around opening edges of the slots on sides of the end surfaces of the stator iron core so as to be in a rounded shape or a chamfered shape.
- 20 3. The a.c. generator for the vehicle according to Claim 1,
 - wherein the stator iron core is formed to be in a rounded shape or a chamfered shape around opening edges of the slots on the sides of the end surfaces of the iron core.
- 25 4. The a.c. generator for the vehicle according to Claim 2,

wherein the stator iron core is formed to be in a rounded shape or a chamfered shape around opening edges of the slots on the sides of the end surfaces of the iron core.

5 5. The a.c. generator for the vehicle according to

Claim 1,

wherein the insulative resin is made thicker at around opening edges of the slots on sides of the end surfaces of the stator iron core than at center portions 10 of the slots in their axial directions.

6. The a.c. generator for the vehicle according to

Claim 2,

wherein the insulative resin is made thicker at around opening edges of the slots on sides of the end 15 surfaces of the stator iron core than at center portions of the slots in their axial directions.

7. The a.c. generator for the vehicle according to

Claim 1,

wherein the conductor segments have a substantially 20 rectangular cross-sectional shape.

8. The a.c. generator for the vehicle according to

Claim 2,

wherein the conductor segments have a substantially rectangular cross-sectional shape.

25 9. The a.c. generator for the vehicle according to

Claim 1,

wherein the end surfaces of the stator iron core are

shaped to be uneven.

10. The a.c. generator for the vehicle according to
Claim 2,

wherein the end surfaces of the stator iron core are
5 shaped to be uneven.

11. The a.c. generator for the vehicle according to
Claim 1,

wherein the inner wall surfaces of the slots are
shaped to be uneven.

- 10 12. The a.c. generator for the vehicle according to
Claim 2,

wherein the inner wall surfaces of the slots are
shaped to be uneven.

- 15 13. The a.c. generator for the vehicle according to
Claim 1,

wherein the insulative resin has a breaking strength
sufficient to withstand breakage, caused at a time of
inserting the conductor segments into the slots.

14. The a.c. generator for the vehicle according to
20 Claim 2,

wherein the insulative resin has a breaking strength
sufficient to withstand breakage, caused at a time of
inserting the conductor segments into the slots.

- 25 15. The a.c. generator for the vehicle according to
Claim 1,

wherein the insulative resin includes silicone.

16. The a.c. generator for the vehicle according to

Claim 2,

wherein the insulative resin includes silicone.

17. The a.c. generator for the vehicle according to
Claim 1,

5 wherein the insulative resin includes epoxy.

18. The a.c. generator for the vehicle according to
Claim 2,

wherein the insulative resin includes epoxy.

19. A method of producing an a.c. generator for a
10 vehicle comprising steps of:

forming a stator iron core by laminating annular
steel sheets, in which a shape of slots is punched out;
and

15 coating at least inner wall surfaces of the slots
and end surfaces of the stator iron core from axial
direction of the stator iron core with an insulative
resin.

20. The method of producing the a.c. generator for the
vehicle according to Claim 19,

20 wherein the coating of the insulative resin is
provided by electrostatic powder coating.